



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/089,581	03/27/2002	Masaru Sakamoto	KIN60USA	2534

270 7590 10/30/2003

HOWSON AND HOWSON  
ONE SPRING HOUSE CORPORATION CENTER  
BOX 457  
321 NORRISTOWN ROAD  
SPRING HOUSE, PA 19477

EXAMINER

ZIMMERMAN, JOHN J

ART UNIT PAPER NUMBER

1775

DATE MAILED: 10/30/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/089,581

Applicant(s)

SAKAMOTO ET AL.

Examiner

John J. Zimmerman

Art Unit

1775

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --****Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 September 2003.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) 7-12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 March 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                              | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)          | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____. | 6) <input type="checkbox"/> Other: _____.                                   |

## **SECOND OFFICE ACTION**

### ***Amendments***

1. The Amendment received September 29, 2003 has been entered. Claims 1-12 are pending in this application.

### ***Election/Restrictions***

2. Newly submitted claims 7-12 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: These newly submitted claims are process claims while the originally submitted and examined claims are article claims. No process search for the newly presented process claims has been done in this prosecution and submission of new claims to a different statutory category of invention after a first action on the merits has been made is not timely. The newly submitted claims are distinct inventions if it can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the applied art clearly shows that products of the type claimed can be used for other purposes than laser drilling (e.g. circuitry - see references applied in this prosecution). Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution

Art Unit: 1775

on the merits. Accordingly, claims 7-12 have been withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Ohara (U.S. Patent 5,482,784).

5. Ohara discloses forming a layer of copper nodules on a copper foil surface. The nodules preferably have a diameter of 0.2-0.8  $\mu\text{m}$  and a further thin layer of rust prevention treatment (e.g. zinc, zinc-nickel) can be applied (e.g. see column 3, lines 53-62; column 4, lines 20-26; Example 1). Regarding the "intended use" language in the claims ("for use in laser beam drilling"), a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).

Art Unit: 1775

6. Claims 1-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Fatcheric (U.S. Patent 5,679,230).

7. Fatcheric discloses forming a layer of copper micro nodules on a copper foil surface. The micro nodules preferably have a diameter of around 0.5  $\mu\text{m}$  (e.g. see column 3, lines 21-24) and a further thin encapsulation layer can be applied. The micro nodules can further be copper-zinc or copper-tin and the further layers can be indium, tin, nickel, cobalt or zinc, brass, bronze (e.g. see column 4, line 59 - column 5, line 20: Claims 1-18). Regarding the "intended use" language in the claims ("for use in laser beam drilling"), a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).

8. Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Lee (U.S. Patent 5,908,544).

9. Lee discloses forming a layer of copper nodules on a copper foil surface. The layer preferably has a thickness of between 1 and 3 microns and has a further thin zinc containing stabilization layer (e.g. see paragraph spanning columns 4 and 5). Regarding the "intended use" language in the claims ("for use in laser beam drilling"), a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the

Art Unit: 1775

prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).

10. Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Tagusari (U.S. Patent 5,858,517) or Tagusari (EP 0785295 A1).

11. Tagusari (U.S. Patent 5,858,517) and Tagusari (EP 0785295 A1) disclose forming a layer of copper nodules on a copper foil surface. The example layers have thicknesses falling in the claimed range of between 0.01 and 3 microns (e.g. see Table 1) and has further thin zinc containing treatment over layers (e.g. see claim 3). Regarding the "intended use" language in the claims ("for use in laser beam drilling"), a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).

### ***Response to Arguments***

12. Applicant's arguments filed September 29, 2003 have been fully considered but they are not persuasive with regards to the remaining rejections. As noted, above, new claims 7-12 to a "method of drilling a hole" have been withdrawn from consideration and only pending claims 1-6 drawn to a "copper foil" have been considered on their merits in this prosecution.

Art Unit: 1775

13. Applicant's submission of a certified translation of the priority document has removed the rejection of the claims by Kataoka (European Application 0966318A2) and Yoshioka (U.S. Patent 6,541,126).

14. Regarding the rejections of the claims under 35 U.S.C. 102(b) as being anticipated by Ohara (U.S. Patent 5,482,784), Fatcheric (U.S. Patent 5,679,230), Lee (U.S. Patent 5,908,544), Tagusari (U.S. Patent 5,858,517) or Tagusari (EP 0785295 A1), the applicant argues that the references do not teach drilling a hole with a laser beam. The examiner notes, however, that no actual laser drilling limitation exists in the rejected claims and that the "intended use" language in the claims ("for use in laser beam drilling") is simply a recitation of the intended use of the claimed invention and there is no structural difference between the claimed invention and the prior art in the rejected claims. As noted in the rejection, if the prior art structure is capable of performing the intended use, then it meets the claim. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).


### ***Conclusion***

15. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

Art Unit: 1775

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John J. Zimmerman whose telephone number is (703) 308-2512. The examiner can normally be reached on 8:30am-5:00pm, M-F. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.



John J. Zimmerman  
Primary Examiner  
Art Unit 1775

jjz  
October 27, 2003